

REMARKS

Claims 1, 3-6, 10-12, 18-22, 24-35, and 37-41 were previously pending. To accelerate prosecution of the application, claims 1, 3-6, 10-12 and 18-21 have been canceled. No new matter has been added. Claims 22, 24-35 and 37-41 remain pending in the application.

Rejection of Claims under 35 U.S.C. § 103

Claims 1, 3-6, 10-12, 18-22, 24-35 and 37-41 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Martin et al. (U.S. Patent Application Publication No. 2003/0191231, now U.S. Patent No. 7,022,759) for the rationale recited in paragraph 8 of Office Action dated on December 3, 2008, and the comments in the Office Action of September 2, 2009. Claims 1, 3-6, 10-12 and 18-21 have been canceled.

Applicants note that paragraph 8 in the December 3, 2008 Office Action was limited to a discussion of claims 1, 3-6, 10-12 and 18-21. Paragraph 9 in the December 3, 2008 Office Action discussed claims 22, 24-25 and 37-41 and included a reference to James A. Belmont, U.S. Patent No. 5,672,198 (Belmont). Similarly, the discussion in the Office Action of September 2, 2009 discusses Belmont. Thus, Applicants believe that the standing rejection of claims 22, 24-25 and 37-41 under 35 U.S.C. § 103(a) is made over the combination of Martin and Belmont. As a result, this response addresses the rejection on this basis.

Martin discloses an aqueous coating composition that includes a water-dispersible polyester oligomer with various properties. The crosslinkable polyester oligomer may be completely water-soluble or only have partial solubility in water. Martin at paragraph 61.

Belmont discloses various aqueous inks and coatings that contained modified carbon products. The modified carbon product may include an organic group that is substituted with an ionic or an ionizable group.

Independent claims 22 and 31 of the present application each recite, in part:

- a) i) at least one nonionic surfactant which is insoluble in water and ii) at least one polymer comprising at least one salt of a carboxylic acid group which is soluble in water, wherein the non-ionic surfactant is a polyalkylene oxide and
- b) at least one pigment wherein the pigment is a modified carbon product.

While Martin discloses polyester oligomers that may include polyethylene oxide compounds, applicants fail to see where Martin discloses a non-ionic surfactant that is a polyalkylene oxide that is insoluble in water. Therefore Martin fails to disclose each and every limitation recited in claims 22 and 31. Even if the combination of Martin and Belmont is proper, the addition of Belmont fails to cure this deficiency.

If Martin was found to teach an insoluble polyalkylene oxide surfactant, applicants still do not believe that the proposed combination of Martin and Belmont would be proper.

An invention composed of several elements is not proved to have been obvious merely by demonstrating that each element was, independently, known in the prior art. *KSR Int'l v. Teleflex, Inc.*, 127 S. Ct. 1727, 1731, 82 U.S.P.Q.2d 1385, 1388 (2007). The Supreme Court has held that, in a proper analysis, one must still “determine whether there was an apparent reason to combine the known elements in the way a patent claims.” *Id.*, 127 S. Ct. at 1731, 82 U.S.P.Q.2d at 1388.

Neither the Office Action of September 2, 2009 nor the Office Action of December 3, 2008 provides valid reasons why one of skill in the art would have combined the teachings of the two references. The most recent Office Action fails to provide any reason at all for combining the teachings of the references. The Office Action of December 3, 2008 states that “it would have been obvious...to incorporate the pigment...taught by Belmont in Martin’s aqueous polymeric composition because in contrast to conventional carbon pigments, the modified carbon products for use in the ink or coating of the present invention are not difficult to disperse in an aqueous vehicle.”

However, this statement is exactly why one of skill in the art would not combine the

teachings of the references. The modified carbon products disclosed by Belmont are designed to be easily dispersible due to the modification of the carbon product itself. “In contrast to conventional carbon pigments, the modified carbon products for use in the ink or coating of the present invention are not difficult to disperse in an aqueous vehicle. The modified carbon products do not necessarily require a conventional milling process, nor are dispersants necessarily needed to attain a usable ink or coating. Preferably, the modified carbon products only require low shear stirring or mixing to readily disperse the pigment in water.” Belmont at col. 3, lines 18-26. Belmont suggests that if one modifies the carbon product as taught, the necessity of using a dispersant to render an aqueous dispersion is eliminated. Thus, rather than suggesting combining the teachings of the two references, Belmont actually teaches away from the proposed combination by teaching that such a combination would be unnecessary to achieve an aqueous dispersion of the modified carbon product.

The Applicants believe that it is only through the use of improper hindsight that the Patent Office has arrived at the conclusion that it would be obvious to combine the Martin and Belmont teachings. As Belmont teaches away from making such a combination, and no other reason to combine the references has been provided in either of the previous Office Actions, the only reason remaining for making the proposed combination is the explicit teaching of the present application. Therefore, claims 22 and 31 are patentable over the art of record. As claims 24-30, 32-35 and 37-41 depend from either claim 22 or 31 they are patentable for at least the above mentioned reasons. Withdrawal of the rejection is respectfully requested.

Conclusion

In view of the foregoing remarks, Applicant believes that this application is in good and proper form for allowance, and the Examiner is respectfully requested to pass this application to issue. If, in the opinion of the Examiner, the application is not in condition for allowance, Applicants respectfully request that the Examiner contact the Applicants’ attorney at the telephone number below.

Respectfully submitted,
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